REMARKS

Claims 1, 3, 14, 15, 26, 28, 30, 32, 38, and 39 have been amended. Claims 1 – 47 are pending in this application. The Applicant acknowledges that Claims 10 – 13 are recognized as containing allowable subject matter. Reconsideration and further examination of the remaining claims is respectfully requested.

Specification

The disclosure was objected to because the serial number for a co-pending U.S. patent application was needed. The disclosure has been amended to add the serial number.

Claim Rejections – 35 USC § 112

Claims 15 – 23 and 39 – 45 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 14, 15, 38, and 39 have been amended to clarify that either a first or second server message is referred to. The rejection is thus overcome.

Claim Rejections – 35 USC § 102

Claims 1 – 9, 14, 24 – 38, 46, and 47 were rejected under 35 U.S.C. 102(e) as being anticipated by Basani et al. (6,748,447). This rejection is respectfully traversed.

> The Applicants' exemplary independent claim 1 sets forth:
> "A method for operating a fault-tolerant server group in client-server distributed dynamic network systems, comprising:
> receiving, by a master server in a fault-tolerant server group, a request sent by a client, said fault-tolerant server group comprising said master server and at least one back-up server, said master server communicating with both said client and said at least one back-up server, each server in said server group, including said master server and said at least one back-up server, having an election

mechanism enabling said fault-tolerant server group to elect a new master server, when said master server fails, in a process in which at least some of the election mechanisms are triggered by timers set to different times relative to the time at which said master server is detected to have failed; processing, by said fault-tolerant server group, said request to produce a result, said request being processed concurrently by said master server and said at least one back-up server; and sending, by said master server, said result to said client."

The Applicants thereby provide a fault tolerant server group in which servers elect a master according to an election process timed in part from master server failure. So, for example, when the master fails, the back-up servers will initiate election of a new master at different times relative to when the master failed. This can advantageously decrease network traffic due to a multitude of messages sent at similar relative times that need to be resolved.

In contrast, Basani discloses a known master/back-up server system wherein each back-up server initiates its election process as soon as it detects that the master has failed. (Basani, col. 14 lines 28 – 30: "If any server fails to observe the LA messages for a configurable period, then such a server initiates a new election"; col. 14 lines 38 – 40: "Where multiple servers determine that the LA messages have stopped, each may attempt to send a Leader Claim (LC) message before receiving an LC message from any other candidate, and a finite state mechanism is required for resolving these conditions deterministically".) Timers in Basani are used to control intervals between claim messages and waiting periods during which other messages may be received. Thus, Basani fails to teach or suggest the Applicants' claimed method of operating a fault tolerant server group "in which at least some of the election mechanisms are triggered by timers set to different times relative to the time at which said master server is detected to have failed". Claim 1 and its dependent claims are therefore believed to be in condition for allowance.

Claims 26 and 30 contain limitations similar to those of claim 1; therefore, claims 26 and 30, and their dependent claims are also believed to be in condition for allowance.

The Applicants' independent claim 3 sets forth an election mechanism for a master and back-up servers including the step of "electing, when said master server is detected not functional, a new master server based on at least one election periodic timer, each of said at least one election periodic timer being associated with a different server in said server group and specifying a length of time relative to the time at which the master server is detected not functional". Claim 3 and its dependent claims are thus believed to be in condition for allowance for the same reasons as set forth with regard to claim 1. Claims 28 and 32 contain limitations similar to those of claim 3; therefore, claims 28 and 32, and their dependent claims are also believed to be in condition for allowance.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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